



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0670; Project Identifier AD-2021-00849-T; Amendment 39-21691; AD 2021-17-08]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-800 and -900ER series airplanes. This AD was prompted by reports that several of the fittings that provide attachment between the radome and fuselage were cracked to the point of failure on airplanes modified in accordance with a certain supplemental type certificate (STC). This AD requires demodification of the STC installation on the airplane by removing the external equipment installed during the STC modification (including the radome, antenna, and associated structure), installing doubler and fasteners, and system deactivation by pulling and collaring associated circuit breakers if installed. This AD also requires inspecting the external and feed-through doublers, intercostals, skin, and frames in the area around the removed external equipment for cracking, and repair if necessary. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Astronics Armstrong Aerospace, 804 S Northpoint Blvd, Waukegan, IL 60085; telephone 847-244-4500; Internet <https://www.Astronics.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0670.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0670; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket

contains this final rule, any comments received, and other information. The street address for the Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Surinder Sangha, Aerospace Engineer, Propulsion & Program Management Section, FAA, Chicago ACO Branch, Room 107, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone 847-294-7010; fax 847-294-7834; email: surinder.sangha@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA has received reports indicating that several of the fittings that provide attachment between the radome and fuselage were cracked to the point of failure. The radome to fuselage fittings were part of the ViaSat In-Flight Connectivity (IFC) System Antenna Provisions installed in accordance with FAA STC ST04096CH on Model 737-800 and -900ER series airplanes. This failure of the attachment fittings, if not addressed, could result in loss of the radome and antennae, and consequent damage to the tail and damage to the fuselage in the vicinity of the radome, which could reduce the ability of the flightcrew to maintain safe flight and landing of the airplane. The FAA is issuing this AD to address the unsafe condition on these products.

FAA's Determination

The FAA is issuing this AD because the agency has determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed Astronics Armstrong Aerospace Engineering Order, "ViaSat In-Flight Connectivity (IFC) System DE-MOD Boeing 737-800/-900ER Series Aircraft," Document No. EO23-9642-02, Revision B, dated April 25, 2016. This service information specifies procedures for demodification of the STC installation by removing

the external equipment (including radome, antenna, and associated structure) that was installed in accordance with FAA STC ST04096CH, and installing doubler and fasteners (de-mod kit), and system deactivation by pulling and collaring associated circuit breakers.

The FAA also reviewed Astronics Connectivity Systems and Certification Service Bulletin SB44-9642-01, dated July 8, 2021. This service information specifies procedures for inspecting the external and feed-through doublers, intercostals, skin, and frames in the area around the removed external equipment for cracking. The inspections include an external low frequency eddy current (LFEC) inspection of the skin at the alteration installation area, doubler fastener holes in the first two rows of attachments between the doubler and fuselage skin, fastener and connector hole locations, the external doublers between fasteners at the area common to the stringers, and at the area common to the frame tees; an internal high frequency eddy current (HFEC) inspection of the intercostal at the fastener locations and the frames in the area of added frame segments; an internal detailed visual inspection of the frames between stringers 3L and 3R; an open hole HFEC rotating hole inspections of the stringer fastener holes where the doublers cover the stringer; a HFEC open-hole inspection of the 4X fitting base holes common to the external doublers at the 8X AR240-1949-01 side fitting assembly locations; and an external HFEC inspection of the skin at the stringer fasteners, including all stringer fasteners which may be covered beneath the radome and adapter ring.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

AD Requirements

This AD requires accomplishing the actions specified in the service information already described. This AD also requires repairing any crack found during the inspections.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

There are currently no U.S.-registered airplanes affected by this AD. Accordingly, notice and opportunity for prior public comment are unnecessary, pursuant to 5 U.S.C. 553(b)(3). In addition, for the foregoing reason(s), the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days.

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include Docket No. FAA-2021-0670 and Project Identifier AD-2021-00849-T at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all

comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Surinder Sangha, Aerospace Engineer, Propulsion & Program Management Section, FAA, Chicago ACO Branch, Room 107, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone 847-294-7010; fax 847-294-7834; email: surinder.sangha@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

Currently, there are no affected U.S.-registered airplanes. For any affected airplane that is imported and placed on the U.S. Register in the future, the FAA provides the following cost estimates to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product
Removal and installation	24 work-hours X \$85 per hour = \$2,040	\$2,000	\$4,040
Inspections	8 work-hours X \$85 per hour = \$680	\$0	\$680

The FAA has received no definitive data on which to base the cost estimates for the on-condition repairs specified in this AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the

national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-17-08 The Boeing Company: Amendment 39-21691; Docket No. FAA-2021-0670; Project Identifier AD-2021-00849-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 737-800 and -900ER series airplanes, certificated in any category, with ViaSat In-Flight Connectivity (IFC) System Antenna Provisions installed in accordance with Astronics Armstrong Aerospace Supplemental Type Certificate (STC) ST04096CH.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports that several of the fittings that provide attachment between the radome and fuselage were cracked to the point of failure. The FAA is issuing this AD to address cracked fittings, which could result in loss of the radome and antennae, and consequent damage to the tail and damage to the fuselage in the vicinity of the radome, which could reduce the ability of the flightcrew to maintain safe flight and landing of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Demodification Part I (Removal of External Equipment)

Before further flight, remove external equipment (including radome, antenna, and associated structure) that was installed in accordance with STC ST04096CH. Do the removal in accordance with steps 1 through 9 of paragraph 5.2.1., of Astronics Armstrong Aerospace Engineering Order, “ViaSat In-Flight Connectivity (IFC) System DE-MOD Boeing 737-800/-900ER Series Aircraft,” Document No. EO23-9642-02, Revision B, dated April 25, 2016.

(h) Inspection and Repair

Before further flight after accomplishing the removal required by paragraph (g) of this AD, inspect the external and feed-through doublers, intercostals, skin, stringers, and frames in the area around the removed external equipment for any cracking in accordance with paragraph 3.3., “Inspection,” of Astronics Connectivity Systems and Certification Service Bulletin SB44-9642-01, dated July 8, 2021. If any cracking is found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(i) Demodification Part II (Installation and System Deactivation)

Before further flight after accomplishing the actions required by paragraph (h) of this AD: Install doubler and fasteners and deactivate the system (including pulling and collaring associated circuit breakers if installed) in accordance with steps 10, 11, and 12 of paragraph 5.2.1., of Astronics Armstrong Aerospace Engineering Order, “ViaSat In-Flight Connectivity (IFC) System DE-MOD Boeing 737-800/-900ER Series Aircraft,” Document No. EO23-9642-02, Revision B, dated April 25, 2016.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Chicago ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in Related Information.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(k) Related Information

For more information about this AD, contact Surinder Sangha, Aerospace Engineer, Propulsion & Program Management Section, FAA, Chicago ACO Branch, Room 107, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone 847-294-7010; fax 847-294-7834; email: surinder.sangha@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Astronics Armstrong Aerospace Engineering Order, “ViaSat In-Flight Connectivity (IFC) System DE-MOD Boeing 737-800/-900ER Series Aircraft,” Document No. EO23-9642-02, Revision B, dated April 25, 2016.

(ii) Astronics Connectivity Systems and Certification Service Bulletin SB44-9642-01, dated July 8, 2021. The issue date of this document is identified only on page 3 of the document.

(3) For Astronics service information identified in this AD, contact Astronics Armstrong Aerospace, 804 S Northpoint Blvd, Waukegan, IL 60085; telephone 847-244-4500; Internet <https://www.Astronics.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on August 11, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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